Railway History Group

of Southern Africa, 10029 Howard's End, Pinelands 7405 Tel. (021) 531-1388 E-mail: wgreig@mweb.co.za



# Bulletin No. 110 August 2012



Scene at Botha's Hill station, Natal. The loco is an NGR converted K & S class No. 39, later SAR class C1, with aDurban-Pietermaritzburg train. The date is unknown. The sign on the building, behind the last coach, reads "RailwayRefreshment Room". Can anyone add anything to this photo?Pretoria Archives via Pierre de Wet

1



Driver Concher, in charge of CGR Class 6H No. 546, North of Cradock.

Leith Paxton Collection

Editorial

Subs for 2012 Subs for this year are now due. The rates are as follows:

Printed Bulletins: R110 for S A Residents and R160 (\$ US 19.25 £12.37) for Foreign Residents. E-mail Bulletins: R30 regardless of where you reside. (\$ US3.61 £2.32).

Foreign residents are required to pay via PayPal. This is the cheapest and most secure means of making payments if you are a Foreign Resident . At most, only two of our Foreign Resident members do not have PayPal accounts. Page 2 of Bulletin No. 103 contains details of how to open a PayPal account. Local Residents can pay by cheque, direct deposit into the RHG account or by Internet Banking. Banking details are: Name of account: Railway History Group.

Bank: Standard. Bank Code: 036309. Type of Account: Savings (Plus Plan). Account Number: 274 709 635.

Lionel Penning has supplied details of a number of websites dealing with the 1979 Steam Safari. The photos are all in colour and are excellent. Go to <u>http://www.drehscheibe-foren.de/foren/read.php?17,5732619</u> This will take you to the De Aar Depot website, at the end of which, you will find links to the other websites in the series. The photos take quite a while to load.

Sandstone Heritage Trust has announced details of their Stars of Sandstone 2013 Steam Heritage Festival, which will take place from 4<sup>th</sup> to 12<sup>th</sup> May 2013. Full details are available at: http://www.sandstone-estates.com/index.php/home

They will be celebrating the centenary of the Kerr-Stuart NG4, a well-designed and very iconic tank engine built specifically for the Alfred County Railway and delivered in 1913. Their NG4 will play a prominent role in the activities and celebrations throughout the festival.

Follow up on Bulletin No. 109 Dynamometer Car Peter Bagshawe sent the following e-mail:

"Interesting article on the SAR Dynamometer cars. I see that the original coach travelled north to the Congo on one occasion, and I can confirm that the later coach also travelled north, reaching at least as far as Lusaka in Zambia. On 17 to 19 November 1982, 15073+15074 were noted in Lusaka as follows:

Wed 17/11/1982, 17:00: ZR GE U20C 0-018 noted shunting (it was probably the train engine) SAR 15074+15073+ZR Krupp U20C 0-202+loaded coal wagons+ZR Service coaches 503+859+a guardsvan. Unfortunately I didn't count the number of coal wagons.

Thurs 18/11/1982, 11:20: the exact same train was noted, except this time the loco in charge was ZR GE U20C 0-038. I believe the train had recently arrived from the south.

Fri 19/11/1982, 08:00: The test train was noted in the yard facing north, this time headed by 0-202, with the loco behind the coaches thought to be 0-038. By 08:45 the train was no longer there, presumably having departed for the north.

This was not quite the end of the story, as on Wed 24 November, SAR 33.493 (on hire to ZR) arrived at Victoria Falls Station, Zimbabwe, on a transfer goods from Livingstone which included 15073+15074 in the load, presumably returning south to RSA.

It would be interesting to know the reason for their visit to Zambia.

There is believed to have been at least one more occasion when they paid a visit to Zambia. In January 1992, I was told by Charlie Lewis that when there was talk of a through Johannesburg – Lusaka passenger service, the Dynamometer car was sent to Zambia to check the ZR track condition. The results of these tests meant that Spoornet refused to run a through train!

Finally, according to my observations, the staff coach had a clerestory roof. This seems rather unusual for a coach built as late as 1960, could it have been rebuilt from an older coach?"



Diagram of coach 15074

Peter Stow has commented, as follows, on coach 15074: "Regarding 15074 it was custom built to work with 15073 and was not converted from another vehicle.

I have dates in service as 15073 5/7/1960 15074 22/7/1960

The last timber bodied vestibule main line coach was placed in service in August 1957 and as the workshops were geared for the repair of timber bodied coaches it was no problem to build a single vehicle like 15074."

Photo on Page 1:

John Middleton commented: "My suggestion on the mystery 12AR at a station with milepost 58 1/4 is Stutterheim on the East London Main Line (93 km from East London), and the train is heading north. Now can anyone say which train it might have been? The loco behind on the freight is probably a 14CR. I am sure Les Pivnic will confirm.

Les Pivnic sent this e-mail: "The train in the Stutterheim photo is no.434 - the fast passenger from East London to Johannesburg - departing E.L. at 10.30am - Stutterheim 1.30pm.

Trains 434 and its opposite number 433 carried the Centenary Crest during 1960 to celebrate 100 years of railways in South Africa.

All the top-link passenger trains on all main lines carried similar headboards. Even the Blue Train and Orange Express carried special Centenary boards during the course of 1960 - reverting to their standard headboards again in 1961.

At the time that the SAR photo was taken, class 12ARs were standard motive power on these trains, working as far as Queenstown from where a double-headed combination of classes 15A or 15AR would take over for the run to Burgersdorp."

Peter Stow has sent the following comments: "Just to add to what Les has stated, the class 12AR locomotives were transferred to East London in 1951, allowing for single-headed working as illustrated, and the passenger train load for a class 12AR in the Up direction between EL and Queenstown was 13 coaches and 14 coaches in the Down direction. This begs the question as to whether this resulted in an accumulation of coaches in East London? My 1963 WTB for the Cape Eastern System reflects a load of 13 in both directions. Prior to this, during 1938, double–headed working was in force with classes 14C and 19C with 12 coaches in both directions and, from 1943, classes 14C and 15A were used with loads of 14 coaches in both directions, until the arrival of the 12AR's. In a 1967 WTB for the Cape Eastern System the load for a class 12AR is given as 11 coaches compared to 10 coaches for the 14C/RB and 15A/R locomotives. It is not known why the load for the 12AR was reduced for, by then, class 33-000 diesels had taken over.

Tests in November 1957 with class 15F 3083 from Bloemfontein between Springfontein and East London proved the unsuitability of the type owing to unbearable conditions on the footplate in the tunnels between East London and Queenstown.

As early as March 1958, GMAM 4065 from Waterval Boven was tested between East London and Burgersdorp and a load of 15 bogies was recommended, although this was reduced to 14 in September 1958 in order to maintain point to point running times, without abusing the locomotives on upgrade sections and by over speeding on the down grade sections. The GMAM's were introduced in the early 1960's and were run bunker first for the benefit of the footplate staff, but from personal experience as a passenger on train 434 in 1963, from Stutterheim to Durban, it was a most unpleasant experience through the tunnels. No wonder this line was dieselized so early in the programme.

Getting back to the train illustrated, apart from the daily (except Thursdays after the Summer holiday peak) coaches to Johannesburg, Pretoria and Bloemfontein, this train carried through composite coaches to Durban on Mondays and Fridays and to Bulawayo on Tuesdays and Saturdays, also picking up a composite coach from Aliwal North to Johannesburg at Burgersdorp on Tuesdays and Saturdays. The coaches to Bulawayo

#### Branchline to Kootjieskolk

Dave Littley has commented as follows: "Richard Sabatini's mention of the branch to Kootjieskolk in RHG Bulletin 109 prompts a thought or two. You probably don't know that, while I was living in SA, I made a lot of notes on Cape Province branch line information printed in Government publications. This covered everything from opening to washaways to operating costs. The branch from Hutchinson was opened as far as Carnarvon in CGR days but I have some figures from the SAR period as well. Within the first few years the line paid a return over and above operating expenses (although whether this included Head Office costs I rather doubt). However, by 1922 the line was making a loss, a situation which can hardly have changed thereafter. It was what the Cape Government called a 'developing line' and was only one of many.

Although Richard states that the Kootjieskolk line was built mainly to provide transport this is really only a small part of the story. The principal influence in the building of 'developing lines' was politicians - each MP made a case for railway lines in his area and Parliament then referred the matter to the CGR (later the SAR) for evaluation. The railways carried out a preliminary survey of the proposed line to establish whether the route was feasible and whether there was a reasonable prospect of traffic to support it. If the case was made, the railways then carried out a proper engineering survey and eventually submitted the results to the Government. Most of these documents were published as official Government publications and they make interesting reading (also including well-drawn maps of the proposed route and any feasible variations). Even after that, the Government had to pass an Act of Parliament to authorise the required expenditure - this did not always happen - some lines were just too expensive to be contemplated.

A few schemes were proposed by private companies. In those cases an Act of Parliament was still required but the capital was raised privately. Examples were the Cape Central (and New Cape Central) and the Grand Junction Railway. I don't think many people have heard of the latter (it built various sections of a proposed line from Oudtshoorn to East London but ran into terminal financial trouble during the Second Anglo-Boer War and the completed lines were taken over by the CGR.

There is probably a lot of material in Government publications which would be of interest within the RHG. I compiled a (long) list of the CGR documents and made sketchy notes on most of them. However, my notes do no more than convey a general outline of railway developments (solely from the official point of view, of course) and I'm fairly sure that some of our Cape Town members could find quite a lot to interest them in these documents (copies are in the SA Library (now the National Library of south Africa) and Cape Archives at least - probably also UCT, and most are in the library at Stellenbosch University as well).

#### Photo on page 10 of an armoured locomotive

John Middleton wrote as follows: "The photo of the armoured loco initially appears to be a 4-4-0 but when I enlarged it you can see its a 4-6-0 with the front set of drivers in deep shadow - probably a Class 04 (CGR 4th Converted Joy), there seems to be a name on the side plating "UBIQUE".

Comments from Ray Ellis: "John, re the armoured train loco, I would suggest it's a CGR 5<sup>th</sup> class 4-6-0. Donald's photo was published in volume 2 of the 2 volume "Detailed History of the Railways in the South African War, 1899-1902" published by the RE Institute, Chatham, in 1904. Photos of the 5<sup>th</sup> class in the Boer War are a bit rare, this book has two: the photo in question and another. Copies of both attached.

Other distinguishing features are the extended smokebox & driving wheel spacing. The  $4^{\text{th}}$  class didn't get extended smokeboxes until later, and their driving wheel spacing was much shorter than the  $5^{\text{th}}$  class.

Reference: *Detailed History of the Railways in the South African War, 1899-1902* – 2 Volumes, the first is all text with some charts & maps, the second is all photos & diagrams of the armoured trains, locos & wagons, how damaged structures (mainly bridges) were repaired, and bridge diversions, some quite ingenious!

### The Hulse S-24 Double-Deck Coach

#### By David Hicks. Published in the Aug/Oct 1999 S.A. Rail

Oscar Hulse worked, as a Clerk, for the SAR, in Cape Town, in the early years of the last Century. At some date, before 1924, he designed a double deck passenger coach, for 1<sup>st</sup> Class service. On 22 March 1924 he applied for and received a Patent for his design. His design was then made known to the SAR and in April 1924 the Chief Clerk in the Mechanical Engineer's Office, Salt River, wrote to the Office of the General Manager, stating that a Clerk in his Office, Oscar Hulse, had designed a double decked coach which could run on existing tracks, within the loading gauge and asked if the General Manager could interview him.

The Chief Mechanical Engineer was asked for his views, but for various reasons he was not impressed. However, when pressed, he agreed that there was no technical reason why the coach could not be built. There followed a rather protracted period of negotiation about technicalities of construction as well as about royalties that had to be paid to Mr Hulse, by virtue of his patent.

By October 1925 the Acting CME reported that drawings were ready, and he made a formal proposal that £5170 be made available in the 1926-7 Capital & Betterment Estimates. The CME was not happy that the drawings had been made by the inventor, but eventually he signed the Application for Authority for New Works, and an agreement was drawn up between the Administration and Mr Hulse.



An extract from THE CAPE ARGUS: 2 June 1926

In outward appearance, the vehicle will resemble a modern suburban coach except that it will be slightly higher and, between the two sets of wheel trucks, the body frame will be sunk below the level of the wheel axles, thus permitting two passenger decks to be provided instead of one. Access to these decks will be by

means of stairways leading from the normal floor level to which passengers normally step from the station platform.

Seating accommodation on both decks will be arranged longitudinally. On the lower deck the seats will be placed on each side of a central corridor, and on the upper deck they will be back-to-back; the corridor being on the outside of the seats, that is, between the seats and the side walls.

The requisite walking height for the lower deck will be obtained by utilising the dome space available underneath the two back-to-back rows of seats on the upper deck, while on the upper deck the floors of the two corridors are to be situated over the seating accommodation of the lower deck at a level which gives sufficient walking height.

Seating accommodation will also be provided in the vestibules or single-deck portion. This will conform to the arrangement of seats at the ends of existing modern suburban coaches. Entrance to the coach will be through the vestibules by doorways leading from the normal floor level to which passengers ordinarily step from station platforms. Hand-rails are to be provided in both upper and lower decks for the convenience, when necessary, of standing passengers.

The upper deck will seat 48 passengers, the lower 48, and the two vestibules 24, a total of 120 passengers. (The maximum seating capacity; of a first-class corridor coach of ordinary design is 72 passengers.) The length of the coach will be 62 ft 6 in, the height from the rail 12 ft 8 in, and the width 9ft 1 in.

The detailed designing of the vehicle to meet the intricacies of railway gauges, standards, and so forth has been carried out by Mr A.L. Ramsay, draughtsman, of Salt River Works.

![](_page_6_Picture_6.jpeg)

Hulse coach, in service, at Pietermaritzburg. Note the sliding doors.

Photo: Les Pivnic

Double-decker trains, it was explained were only suitable for short suburban lines. On lines of this type they were useful on account of their extra seating capacity, but apart from this they were unsuitable for long distance lines.

It was first proposed to run the coach between Cape Town and Sea Point or between Cape Town and Stellenbosch, but the CME pointed out that the feature of the coach was its carrying capacity and that the latter route did not seem appropriate. Meanwhile construction was under way. Then there was a dramatic

turn of events which had considerable repercussions on the fate of the vehicle. In April 1927 the GM inspected the coach, then under construction, and indicated that he considered it advisable to use it for third class traffic only.

Already opposition to the coach was apparent. The Assistant GM in Cape Town was concerned about the time it would take for passengers to alight and board, assuming the coach was to be used on the Langa line; his suggestion that it be used on the Reef was not accepted.

#### "HULSE DOUBLE-DECKER" IN SERVICE

Eventually the construction was completed and the coach had its trial run on 14 July 1927. The following report appeared in the Cape Times, the following day :-

"The Hulse double deck passenger coach, named after its inventor, an official of the South African Railways, for the construction of which Parliament voted £5170 in 1926 went on its trial run yesterday afternoon.

According to the testimony of passengers who travelled in it yesterday, the run was satisfactory in every respect and the coach admirably fulfils the test. There was an absence of any sway whatever.

The Argus and The South African Review of the same day had similar reports; however the South African Review concluded ... "It is an awful contraption to look at, as might be expected with its two rows of tiny windows; The coach, is a lumbering affair, and it is to be hoped it will prove useful and not turn out to be a mere fad."

![](_page_7_Picture_7.jpeg)

Interior of the Hulse coach, showing upper and lower sections.

Photo: Les Pivnic Collection

The Railways administration found that the trial trip was satisfactory as regards to the running, but that loading and unloading capacity had still to be tested, with the possibility of trying the coach between Cape Town and Maitland. No. 6704 was placed into service on 22 July.

In the first full report, it was noted that headroom was limited, especially in the lower deck and that ventilation would be inadequate, particularly because the windows of the lower deck were almost at platform level - swirling dust entered in considerable quantities. Adverse comment was made with regard to the facility with which passengers were able to move to the doorways which resulted in delay, sometimes doubling the scheduled stopping time.

It was noted that the coach tared at 34 tons with a carrying capacity of 124 passengers, whereas the standard 3rd Class coach tared at 28 tons accommodating 118 passengers. This meant an additional 6 tons to accommodate only 6 additional passengers. A significant problem was the ability of passengers to move from one deck to another in order to avoid the ticket examiner. The report concluded that with the small clearance between the well section and the rail (6 inches) the risk of possible injury was high, should the coach come into contact with obstructions or in the event of a derailment. To be continued.

## PANKOP CARRIAGE PUZZLE By Robin Lake

Can any reader throw some light on the origins of the carriage illustrated below? (The diagram was too poor to reproduce). This Central South African Railways (CSAR) sketch plan is dated 31 October 1911 and carries the description "PANKOP LIGHT RAILWAY – SKETCH PLAN OF EXISTING BODY OF DISMANTLED COACH, LATE NO 65 AT DATE LYING ON TIMBER BAULKS IN PIENAAR'S RIVER STATION YARD". The writer has not found any photographs or other drawings of this vehicle.

#### Brief Background

The Pienaar's River – Settlers narrow-gauge branch line in that area of the, then, Transvaal now known as Limpopo Province was officially opened on 21 June 1906 with the main aim of assisting the farmer settlers on the Springbok Flats in getting their produce to the markets. It was also to be an inexpensive trial for any future narrow gauge light railways contemplated by the CSAR. The nucleus of the rolling stock and track was material originally intended for use by the British forces as a light railway to service a siege depot near Pretoria during the Boer War. The anticipated siege of Pretoria never came about and the equipment was used instead in servicing a military establishment at Elandsfontein east of Johannesburg. When the war ended it was sold as surplus by the British War Office and, supplemented by more track, used for a short while on a privately owned wood line based at Pienaar's River and running some 14 kilometres to Pankoppen Farm. Fired by a petition presented by the settler farmers in December 1904 the line and equipment was purchased by the Transvaal Department of Land with the CSAR negotiating the purchase. At the same time plans were set in train to extend the line 31 kilometres to Settlers. The whole branch and the administration thereof was taken over by the CSAR. Paragraph 2087 of the CSAR Weekly Traffic Notices of 1906 laid down that the branch to Settlers be known by the name of Pankop Two-Foot Railway but this soon became (officially or not?) Pankop Light Railway.

#### Pertinent Points

1. The builder's records and drawings evince that the running gear of the War Office rolling stock (locomotives and wagons) was designed for 60 cm gauge track. South African Defence Force archive records confirm that the 9.7 kms steel-sleepered portable track supplied to the War Office was of 60cm gauge.

2. During May 1905 the CSAR informed the Department of Land that it had on hand a carriage and four trucks suitable for the Pankop branch, i.e. over and above the wood line equipment. The carriage had to be put into a proper state of repair and further communication was to follow as to the value of the five vehicles and cost of repairs to the carriage. The CSAR letter mentioned that the latter had 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> class compartments.

3. Following upon 2. above a CSAR letter of 19 May 1905 from Mr Thomas Price, General Manager, to The Commissioner for Crown Lands gives us a few more details of the carriage:

" I subjoin for your information particulars of the vehicles which this Administration has available, together with the cost of each after effecting the necessary repairs, and shall be glad to hear you are agreeable to pay this Administration the total value thereof, viz  $\pounds$  600.-

1 Bogie Coach, about 30 ft. long, divided into 3 compartments, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> classes, fitted with hand brake for Guard's use in 3<sup>rd</sup> class compartment; also fitted with automatic vacuum brake £ 275, 0s 0d"

Space does not permit dwelling upon the four goods vehicles which were all of different types. They could well have come from the same source as the carriage. One of them, however, was significant in its length and use and may provide a clue. This was a 30 foot long bogie cattle wagon, carrying capacity 22026 lbs. Was this the "one-off" wagon NG101 still to be found for instance, in the 1945 diagram book as type GH 7, previously 8-G-10?

4. At a meeting with the farmer settlers on 26 May 1906 Mr Thomas Price, the General Manager of the CSAR, announced that there was a carriage at Pienaar's River Station. It was "a little bit too wide to gauge" but this would be attended to. He also informed the meeting that Mr Biggs, the Agent for the Pankop Light Railway, had mentioned to him that he was of the opinion that an open truck with seats and an awning over it would be preferred. Later the same day, during a meeting attended by Messrs Price, William Hoy (Chief Traffic Manager CSAR) and Biggs it was agreed "that it would be more acceptable to fit up a truck with seats, with an inexpensive cover, for the conveyance of Whites, than to use the carriage at all events as a trial. Mr Hoy is to supply the covering."

Thus the well-known Pankop "toast rack" carriage came into being.

5. Records reveal that a CSAR carriage, number 65, did indeed come into South African Railways stock after Union and that it was scrapped in 1912.

6. The aforementioned CSAR sketch plan seems to without doubt portray the carriage described at 3. above.

7. Did the mention of gauge (4. above) refer to wheel gauge or loading gauge? It is tempting to presume the former because of the sketch plan reference to "dismantled" and "lying on timber baulks".

8. For what it is worth, the writer speculates that this mystery carriage, after being consigned to Pienaar's River Station and unloaded, was found to have bogies wheeled for 61cm gauge and that the bogies were then removed and sent back to workshops never to return for their original purpose.

9. The major question is "From where did the CSAR obtain the carriage in 1904?" – or for that matter the four goods vehicles. A popular guess would be the Beira Railway but these vehicles do not match any brought to light in the two most definitive publications about the Beira Railway history or in any other research material seen by the writer.

![](_page_9_Picture_12.jpeg)

Field Hospital dynamo at Ladismith, during Anglo Boer War.

Can anyone provide info on the "loco"?